

CLAIMS

1. A radio communication system comprising a primary station and a plurality of secondary stations and having a random access channel for the transmission of data from a secondary station to the primary station, wherein the primary station has means for transmitting a random access channel status message indicating the availability of random access channel resources and the secondary station has means for receiving the status message and means for using the contents of the message to determine what random access channel resources to request.

2. A primary station for use in a radio communication system having a random access channel for the transmission of data from a secondary station to the primary station, wherein means are provided for transmitting a random access channel status message indicating the availability of random access channel resources.

3. A primary station as claimed in claim 2, characterised in that means are provided for transmitting the random access channel status message during unused bits in a paging indicator channel or acquisition indicator channel, using the same channelisation code as that channel.

4. A primary station as claimed in claim 3, characterised in that means are provided for generating the random access channel status message as a 3 bit word.

5. A primary station as claimed in claim 4, characterised in that means are provided for encoding the random access channel status message using 4 times repetition coding.

6. A primary station as claimed in any one of claims 2 to 5, characterised in that means are provided for dynamically allocating bit rates to

class 375

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random access channels in response to requests for resources from secondary stations.

7. A secondary station for use in a radio communication system
5 having a random access channel for the transmission of data to a primary
station, wherein means are provided for receiving a random access channel
status message transmitted by the primary station and for using the contents
of the message to determine what random access channel resources to
request.

10 8. A method of operating a radio communication system having a
random access channel for the transmission of data from a secondary station
to a primary station, characterised by the primary station transmitting a random
access channel status message indicating the availability of random access
15 channel resources and by the secondary station receiving the status message
and using the contents of the message to determine what random access
channel resources to request.

20 9. A method as claimed in claim 8, characterised by the random
access channel status message being broadcast regularly.

25 10. A method as claimed in claim 8 or 9, characterised by the
random access channel status message indicating which random access
channels are available.

11. A method as claimed in claim 8 or 9, characterised by the
random access channel status message indicating which data rates are
available on the random access channel.

30 12. A method as claimed in claim 8 or 9, characterised by the
random packet channel status message indicating the highest data rate

available on the random access channel.

13. A method as claimed in ~~any one of claims 10 to 12~~, characterised by transmitting the random access channel status message during unused bits in a paging indicator channel, using the same channelisation code as that channel.

14. A method as claimed in ~~any one of claims 8 to 13~~, characterised by the primary station dynamically allocating bit rates to random access channels in response to requests for resources from secondary stations.

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